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2
3 UNITED STATES DISTRICT COURT
4 WESTERN DISTRICT OF WASHINGTON
5 AT SEATTLE

6 GROUP14 TECHNOLOGIES, INC.,

7 Plaintiff,

8 v.

9 NEXEON LIMITED,

Defendant.

C22-1354 TSZ

ORDER

10 THIS MATTER comes before the Court on a renewed motion to compel discovery
11 brought by plaintiff Group14 Technologies, Inc. (“Group14”). Group14’s motion, the
12 response of defendant Nexeon Limited (“Nexeon”), and Group14’s reply are set forth in
13 the parties’ joint submission pursuant to Local Civil Rule 37, docket nos. 65 (redacted)
14 and 68 (sealed). Having reviewed all papers filed in support of, and in opposition to, the
15 motion, the Court enters the following Order.

16 **Background**

17 **A. Group14’s Intellectual Property**

18 Group14 is the assignee and/or applicant on at least twenty-five (25) U.S. patents.
19 These patents disclose composite materials that are useful in electrical energy storage
20 applications, for example, rechargeable lithium-ion batteries, and methods or processes
21 for manufacturing them. *See, e.g.*, U.S. Patents Nos. 10,147,950 (“950 Patent”) and
22 10,454,103 (“103 Patent”). A rechargeable lithium-ion battery consists of an anode, a
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1 cathode, a separator, an electrolyte, and two current collectors (positive and negative).

2 See <https://www.energy.gov/energysaver/articles/how-lithium-ion-batteries-work>.

3 Positively charged lithium ions are carried by the electrolyte from the anode to the

4 cathode and vice versa through the separator. Id. When moving from the anode to the

5 cathode (or discharging), the lithium ions generate an electrical current that powers a

6 device attached to the current collectors. Id. During the recharging process, lithium ions

7 are released from the cathode and returned to the anode. Id. Traditional lithium-ion

8 batteries consist of a graphitic carbon anode and a metal oxide cathode. '950 Patent at

9 1:57–59; '103 Patent at 1:24–26. The carbon anode stores lithium between layered

10 graphite sheets or, in other words, lithium is “intercalated” between the sheets of carbon.

11 See '950 Patent at 1:55–57; '103 Patent at 22–24. Group14's patents describe a

12 substitute substance for anodes, namely a silicon-carbon (“Si-C”) composite that is

13 comprised of a porous carbon scaffold impregnated with silicon. '950 Patent at 1:19–24.

14 A process for preparing an Si-C composite is disclosed in the '103 Patent, which has two

15 independent claims, the first of which outlines a

16 method comprising contacting an amorphous activated porous carbon
17 material having a total pore volume ranging from 0.6 cc/g to 1.0 cc/g with a
18 gas comprising silane at a temperature of 450°C, thereby depositing
elemental silicon in a pore of the porous carbon material to form the silicon-
carbon composite.

19 '103 Patent at 85:2–8 (Claim 1). The other independent claim is almost identical, except

20 that it delineates exposing carbon to silane gas at temperatures of “between 450°C and

21 500°C.” Id. at 86:2–7 (Claim 10). Additional steps in the process and other methods of

22 producing Si-C composites are discussed in the '950 Patent, but the '950 Patent does not

1 itself assert any proprietary rights in those steps or methods. See '950 Patent at 133:35–
 2 134:62.

3 Notwithstanding its suite of patents, which disclosed to the world and extinguished
 4 any trade-secret protection for the inventions described therein,¹ Group14 asserts that
 5 Nexeon misappropriated its trade secrets in violation of the Defend Trade Secrets Act
 6 (“DTSA”) and Washington’s Uniform Trade Secrets Act (“WUTSA”). See Compl. at
 7 ¶¶ 47–63 (docket no. 1). In its operative pleading, Group14 alleges that it

8 owns and possesses certain confidential, proprietary, and trade secret
 9 information and know-how regarding: (1) porous carbon properties to
 10 support optimal silicon properties and battery cell stability and performance;
 11 (2) optimal Si-C composite properties, such as silicon loading and the
 12 location of silicon within the Si-C composite; (3) methods for determining
 the optimal Si-C composite properties; and (4) manufacturing processes
 including process designs, detailed process steps and parameters to achieve
 commercially viable Si-C composite BAM [Battery Active Materials],
 reactor-type selection, reactor design features, vendors, and suppliers.

13 Id. at ¶¶ 49 & 57. Group14 contends that Nexeon acquired information from Group14
 14 under the terms of a non-disclosure agreement (“NDA”) and then breached the NDA
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 16
 17

18 ¹ The term “trade secret” is defined in similar fashion under both federal and Washington law,
 19 namely as information that (i) derives independent economic value from not being generally
 20 known, and (ii) is subject to reasonable efforts to maintain its confidentiality. See 18 U.S.C.
 21 § 1839(3); RCW 19.108.010(4). Publication of information in a patent or a patent application
 22 eliminates any trade secrecy. Attia v. Google LLC, 983 F.3d 420, 426 (9th Cir. 2020) (citing
 23 Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp., 587 F.3d 1339, 1355 (Fed. Cir. 2009)
 (“[D]isclosure of a trade secret in a patent places the information comprising the secret into the
 public domain. Once the information is in the public domain and the element of secrecy is gone,
 the trade secret is extinguished and the patentee’s only protection is that afforded under the
 patent law.”)); see BondPro Corp. v. Siemens Power Generation, Inc., 463 F.3d 702, 706–07
 (7th Cir. 2006); Ultimate Timing, L.L.C. v. Simms, 715 F. Supp.2d 1195, 1207 (W.D. Wash.
 2010).

by using such knowledge to apply for patents,² promote Group14’s Si-C composite materials as Nexeon’s “NSP-2” product, and induce a third-party (Ingevity Corporation) to invest \$60 million to expand Nexeon’s production capability. *See id.* at ¶¶ 40, 42–45, 51, & 59. In its responsive pleading, Nexeon represents that NSP-2 “differs significantly from any of the Si-C composite materials provided to Nexeon by Group14 in 2017” and that “NSP-2 was independently developed.” Ans. at 38, ¶ 4 (docket no. 47).

B. Ongoing Discovery Dispute

Group14 has propounded numerous discovery requests seeking information and documents to support its DTSA and WUTSA claims, as well as its defenses to Nexeon’s counterclaim,³ but Nexeon has declined to substantively respond because it does not believe that Group14 has defined its alleged trade secrets with sufficient particularity. In connection with Group14’s previous motion to compel discovery, the Court concluded that, based on the record at the time, Nexeon’s position was warranted, and it denied the motion. *See* Order at 14–27 (docket no. 56). The Court explained that Group14 would “not be permitted to use the discovery process to help it define the scope of its trade

² Nexeon is the applicant and assignee on U.S. Patent No. 10,424,786 (“’786 Patent”), which cites, as prior art, Group14’s ’950 Patent and the published application (2017/0346084 A1) for Group14’s ’103 Patent. *See* ’786 Patent at 1 (References Cited).

³ In addition to denying Group14’s assertions of wrongdoing, Nexeon has counterclaimed against Group14 for tortious interference with business expectancy. Ans. at ¶¶ 55–63 (docket no. 47). Nexeon also asserted counterclaims pursuant to Washington’s Consumer Protection Act (“CPA”) and federal and state antitrust laws; the CPA counterclaim was dismissed with prejudice, Order at 6–7 (docket no. 56), and the counterclaim for actual or attempted monopolization was dismissed without prejudice and with leave to amend, *id.* at 8–14 & 26, but no revised pleading was filed by the deadline of November 15, 2023. Group14 has since withdrawn its discovery requests relating to the CPA and antitrust counterclaims, namely Requests for Production Nos. 65–70. *See* LCR 37 Submission at 6 n.4 (docket nos. 65 & 68).

secrets.” *Id.* at 25 (citing *RealD Spark LLC v. Microsoft Corp.*, No. 22-cv-942, 2023 WL 3304250 (W.D. Wash. May 8, 2023)).

C. Current Motion

In December 2023, Group14 served its third supplemental response to Nexeon’s Interrogatory No. 1, which asked Group14 to “[i]dentify all facts and documents sufficient to show with reasonable specificity the ‘manufacturing processes, know-how, and precise measurements and properties’ that [it] contend[s are] . . . trade secrets.” *See* Ex. 4 to Pivovar Decl. (docket no. 70 at 7). Nexeon persists in its refusal to answer a number of Group14’s discovery requests based on the belief that Group14 still has not adequately described its trade secrets. The parties are again at an impasse, and now before the Court is Group14’s renewed motion to compel discovery.

Despite the additional thirty-six (36) pages of images, diagrams, charts, graphs, tables, bulleted presentation slides, and verbiage supplied by Group14 in its supplemental interrogatory response, the Court concludes that Group14 has not yet provided the level of detail necessary under the circumstances to provide reasonable notice of its trade secrets, and the Court will not, given the current record, compel Nexeon to open its filing cabinets and the like for Group14 to peruse. *See M/A-COM Tech. Sols., Inc. v. Litrinium, Inc.*, No. SA CV 19-220, 2019 WL 4284523, at *2 (C.D. Cal. June 11, 2019) (recognizing that the requisite particularity can be “more exacting” when the trade secrets involve “incremental variations on, or advances in[,] the state of the art” because they must be distinguished “from matters already known to persons skilled in [the] field”

(quoting *Advanced Modular Sputtering, Inc. v. Superior Court*, 132 Cal. App. 4th 826, 836, 33 Cal. Rptr. 3d 901 (2005))).⁴

⁴ Both parties cite to *Advanced Modular Sputtering*, in which the California Court of Appeal interpreted a California statute that provides in relevant part:

In any action alleging the misappropriation of a trade secret under the Uniform Trade Secrets Act . . . , before commencing discovery relating to the trade secret, the party alleging the misappropriation shall identify the trade secret with reasonable particularity

CAL. CIV. PROC. CODE § 2019.210 (emphasis added). The *Advanced Modular Sputtering* Court concluded that the statute requires a plaintiff to “make some showing that is reasonable, i.e., fair, proper, just and rational, under all of the circumstances to identify its alleged trade secret in a manner that will allow the trial court to control the scope of subsequent discovery, protect all parties’ proprietary information, and allow them a fair opportunity to prepare and present their best case or defense at a trial on the merits.” 132 Cal. App. 4th at 836 (citation omitted). In two of the four districts in California, Section 2019.210 is viewed as a procedural rule that conflicts with the Federal Rules of Civil Procedure and therefore cannot be applied. *See AtPac, Inc. v. Aptitude Sols., Inc.*, No. CIV S-10-294, 2010 WL 11571246 (E.D. Cal. Sep. 22, 2010); *Hilderman v. Enea TekSci, Inc.*, No. 05cv1049, 2010 WL 143440 (S.D. Cal. Jan. 8, 2010) (citing *Erie R.R. Co. v. Tompkins*, 304 U.S. 64 (1938) (holding that federal courts sitting in diversity apply state substantive law and federal procedure), and *Hanna v. Plumer*, 380 U.S. 460 (1965) (clarifying that federal rules govern over conflicting state procedures unless they are outside the scope of the Rules Enabling Act or are otherwise unconstitutional)); *Funcat Leisure Craft, Inc. v. Johnson Outdoors, Inc.*, No. S-06-533, 2007 WL 273949 (E.D. Cal. Jan. 29, 2007). In the other two districts in California, Section 2019.210 has been used as guidance. *See M/A-COM*, 2019 WL 4284523, at *2 (declining to reach the issue of whether Section 2019.210 is procedural or substantive for purposes of the *Erie* doctrine, but concluding that the requirements set forth in the statute were “warranted and appropriate to assist in the orderly and expeditious handling of discovery”); *Advante Int’l Corp. v. Mintel Learning Tech.*, No. C 05-1022, 2006 WL 3371576, at *3 n.4 (N.D. Cal. Nov. 21, 2006) (noting that Section 2019.210 “provides an appropriate guide in the absence of specific provisions in the federal rules governing trade secret discovery”); *Excelligence Learning Corp. v. Oriental Trading Co.*, No. 03-CV-4947, 2004 WL 2452834, at *3 n.3 (N.D. Cal. June 14, 2004) (ruling that Section 2019.210 (formerly 2019(d)) is “not binding,” but adopting the state’s discovery requirements because “no parallel trade secret discovery provision [is] set forth in the Federal Rules of Civil Procedure”). The approach of the Central and Northern Districts is consistent with the results reached by the Eastern and Southern Districts in *AtPac* and *Hilderman*, respectively; in *AtPac*, although the district court overruled the defendants’ discovery objections premised on Section 2019.210, it concluded that the plaintiff had failed to make a complete initial disclosure concerning its trade secrets as required by Federal Rule of Civil Procedure 26(a), *see* 2010 WL 11571246, at *1–2, and in *Hilderman*, the district court made clear that, regardless of whether Section 2019.210 applies, a party alleging trade secret misappropriation must still give “fair notice” or “fair warning” about its claim by identifying the trade secrets at issue, *see* 2010 WL 143440, at *3–4. In this matter, because Group14 does not assert any claim under California’s version of the Uniform Trade

1 Discussion

2 A. Applicable Standards

3 In denying Group14's earlier motion to compel discovery, the Court relied on
4 certain principles and guidelines articulated by The Sedona Conference, including:

5 **Principle No. 3:** The party claiming the existence of a trade secret must
6 identify the asserted trade secret at a level of particularity that is reasonable
under the circumstances.

7 **Guideline 4:** The identification of an asserted trade secret under a protective
8 order or equivalent agreement between the parties should be made with
9 sufficient particularity to allow the defendant to *meaningfully compare* an
asserted trade secret to information that is generally known or readily
ascertainable and to permit the parties and the court to understand what
information is claimed to be a trade secret.

10 Order at 17 (docket no. 56) (emphasis added, citing The Sedona Conference, *Commen-*
11 *tary on the Proper Identification of Asserted Trade Secrets in Misappropriation Cases*,
12 22 SEDONA CONF. J. 223, 231–33 (2021)). The above-quoted language is consistent with
13 the Ninth Circuit's adoption of a "reasonable specificity" standard. *See Imax Corp. v.*
14 *Cinema Techs., Inc.*, 152 F.3d 1161, 1167 (9th Cir. 1998); *see also MAI Sys. Corp. v.*
15 *Peak Comput., Inc.*, 991 F.2d 511, 522 (9th Cir. 1993) ("[A] plaintiff who seeks relief for
16 misappropriation of trade secrets must identify the trade secrets and carry the burden of
17 showing that they exist."). Group14 does not challenge the Court's earlier analysis,⁵

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19
20 Secrets Act, the Court need not address whether Section 2019.210 controls, and the Court has
21 considered the statute and related decisions only to the extent consonant with Ninth Circuit
jurisprudence.

22 ⁵ In its previous ruling, the Court distinguished between the trade-secret showing necessary to
23 survive a Rule 12(b)(6) motion to dismiss and the disclosure required in response to a query in
discovery about the nature and scope of the alleged trade secret. *See* Order at 15–16 (docket
no. 56). With regard to the latter stage of litigation, the Court was persuaded by a decision cited

1 but rather argues that its third supplemental response “readily meets” The Sedona
2 Conference’s standards. See LCR 37 Submission at 8 (docket nos. 65 & 68). The Court
3 disagrees.

4 In defining its trade secrets,⁶ Group14 relies on three types of evidence:
5 (i) correspondence between the parties; (ii) slides shared by Group14 with Nexeon during
6 presentations and teleconferences; and (iii) Nexeon’s internal communications. The
7 Court has examined these various materials, and it concludes that they do not identify
8 any trade secret with the requisite level of particularity to provide Nexeon with the
9 information necessary to mount a defense. See DeRubeis v. Witten Techs., Inc., 244
10 F.R.D. 676, 680–81 (N.D. Ga. 2007).

11 **B. Correspondence Between the Parties**

12 In its third supplemental interrogatory response, Group14 cited to an email dated
13 May 8, 2017, received from one of Nexeon’s engineers, to support its contention that
14 certain information was not disclosed in the application giving rise to the ’950 Patent and
15 therefore constitutes trade secrets. See Ex. 4 to Pivovar Decl. at 47–48 (docket no. 70
16 at 48–49). The email began:

17 We have now had an opportunity to have read through your recently
18 published patent application WO 2017/040299 A1.⁷ Listed below are a

19 in the parties’ prior LCR 37 submission, see RealD, 2023 WL 3304250, at *3–4, to follow the
20 Sedona Conference’s guidance. See Order at 17–18 (docket no. 56).

21 ⁶ Group14 has provided a set of sixteen (16) bullet points that allegedly identify its trade secrets.
22 LCR 37 Submission at 9–10 (docket no. 68). Nexeon has questioned seriatim each of Group14’s
23 categories of proprietary information. See id. at 21–25. The Court has organized its analysis in a
different fashion, but all of the asserted trade-secret components are discussed.

⁷ In August 2016, Group14’s predecessor, EnerG2 Technologies, Inc. (“EnerG2”), filed an
application titled “NOVEL MATERIALS WITH EXTREMELY DURABLE INTERCALATION OF LITHIUM

number of questions we have identified that we would like to cover please as part of our discussion in the call tomorrow. The output will form part of what we present to the Nexeon Board on 24th May.

Id. at 48 (docket no. 70 at 49).⁸ The message proceeded to ask six (6) questions about the chemical vapor deposition (“CVD”) process,⁹ two (2) questions concerning the requisite carbon scaffold, and one (1) question about the “overall process.” *Id.* These inquiries do not indicate that Nexeon understood Group14 to have retained any trade secrets after applying for its patent. Rather, the first and third questions about the CVD process observe that “the patent covers a range of techniques” and seek information about the “preferred” method, *i.e.*, an embodiment that would be protected by the patent, as opposed to trade secret laws. *Id.* (emphasis added).¹⁰ With regard to the carbon scaffold,

AND MANUFACTURING METHODS THEREOF,” which was published on March 9, 2017, as International Publication No. WO 2017/040299 A1. The application proposes 82 claims, only some of which appear in the ’950 Patent. *Compare* Int’l Publ’n No. WO 2017/040299 A1 *with* ’950 Patent at Claims 1–18.

⁸ Group14 has designated its third supplemental response to Nexeon’s first interrogatory as “HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY,” *see* Ex. 4 to Pivovar Decl. at 17 (docket no. 70 at 18), and it has filed the document under seal without providing, for public view, an appropriately-redacted version. *See* Ex. 4 to Pivovar Decl. (docket no. 66-4). The quoted and/or paraphrased portions of the email at issue, which was reproduced in Group14’s supplemental interrogatory response, do not satisfy the standards for sealing materials, and the Court perceives no need to seal or redact segments of this Order. *See* Local Civil Rule 5(g); *see also Kamakana v. City & County of Honolulu*, 447 F.3d 1172, 1178–80 (9th Cir. 2006); *Foltz v. State Farm Mut. Auto. Ins. Co.*, 331 F.3d 1122, 1135–36 (9th Cir. 2003).

⁹ The ’950 Patent describes two methods of chemical vapor deposition: (i) subjecting porous carbon particles to elevated temperature for a period of time in the presence of silane gas (or silicon-containing gas); and (ii) subjecting porous silicon material to elevated temperature for a period of time in the presence of “suitable deposition gas containing carbon atoms,” including “methane, propane, butane, cyclohexane, ethane, propylene, and acetylene.” *See* ’950 Patent at 30:35–40 & 33:4–9.

¹⁰ Group14’s suggestion that Nexeon knew it was seeking trade secrets is not supported by any of Nexeon’s other queries about the CVD process, namely what pressure was being used (closer to ambient or vacuum), whether the main reactor was “commercially demonstrated equipment,”

1 Nexeon attempted to learn merely whether the starting material was itself proprietary
2 and, if so, whether Nexeon could obtain a license for its use, as well as whether gases
3 other than hydrogen “need[ed] abatement,” see id., or, in other words, the intellectual
4 property (“IP”) status and environmental impact of the process, not the technology
5 underlying it. The final question in Nexeon’s email asked which part of the process had
6 the most technical challenges and whether Group14 could provide a summary of its plans
7 to address them. Id. When considered in context, neither this inquiry nor any of the
8 other inquiries in the email can be viewed as soliciting trade secrets.

9 Moreover, as noted by Nexeon, and acknowledged by Group14 in its discovery
10 response, see Ex. 4 to Pivovar Decl. (docket no. 70 at 52:12–25), even if the May 2017
11 email could be viewed as probing for trade secrets, Group14 did not actually disclose
12 anything proprietary in response. See Ex. 9 to Lindberg Decl. (docket no. 70-2 at 2–3).¹¹
13 Rather, Group14’s chief technology officer (“CTO”) replied to four of the nine questions
14 posed in the May 2017 message, including the inquiry about the “overall process,” by
15 proposing to defer further discussion “until after our companies pass the next hurdle” or
16 “are deeper in due diligence,” or by simply stating that he “would rather not share more
17 specific details . . . until the right time.” See Ex. 9 to Lindberg Decl. (docket no. 70-2 at
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19 whether an opportunity existed for Group14 and Nexeon to collaborate, and whether Group14
20 could share a “bill of materials.” Ex. 4 to Pivovar Decl. (docket no. 70 at 49).

21 ¹¹ This document was filed under seal, but the portions quoted or paraphrased in this Order do
22 not meet the applicable test for preventing public access to judicial records. See Minute Order at
23 ¶ 1 (docket no. 82) (previously advising the parties that, “if the Court must reproduce in its
rulings verbiage from any of these (or other) sealed documents, the Court will consider at that
time whether such language must be made publicly available via inclusion in an unsealed order
or minute order and/or the unsealing of the materials.”).

2–3). The CTO’s other answers described Group14’s plans and goals in vague terms with no details, for example, “we are in discussions with our equipment vendor,” “we are striving to get as close as possible to 100% utilization,” and “[w]e are exploring both existing commercial-scale reactor designs . . . and developing our own reactor concepts.” *Id.* (docket no. 70-2 at 2). The Court concludes that Group14 has not identified with any, let alone reasonable, particularity a trade secret that was provided to Nexxon in the email chain at issue.

C. Presentations and Teleconferences

In its third supplemental interrogatory response, Group14 also included various presentation slides that were shared with Nexxon (i) during the course of two “summits” held in Seattle at Group14’s laboratory facilities, or (ii) via teleconferences. In support of its motion to compel discovery, Group14 has also offered a declaration by its expert, Steve W. Martin, Ph.D., which purports to explain the content of each slide, and which states in conclusory fashion that the information in the slides was not disclosed by or readily ascertainable from the ’950 Patent, a related published application,¹² or “other Group14 public disclosures.” *See* Martin Decl. at ¶¶ 19 & 21–36, Ex. 5 to Pivovar Decl. (docket no. 70-1).¹³ The slides at issue fall into three categories: (i) slides that compared

¹² The invention described in the ’950 Patent was disclosed in both (i) International Publication No. WO 2017/040299 A1, and (ii) Publication No. US 2017/0170477 A1. Dr. Martin has not, however, mentioned the latter document, which made public, as of June 15, 2017, EnerG2’s Application No. 15/248,830, which ripened into the ’950 Patent.

¹³ Dr. Martin has defined “other Group14 public disclosures” as including *only* four international publications (WO 2013/120011, WO 2014/201275, WO 2017/040299, and WO 2018/165610) and materials presented to the United States Department of Energy on June 8, 2017. Martin Decl. at ¶ 19, Ex. 5 to Pivovar Decl. (docket no. 70-1). Dr. Martin has misidentified one of the

batches of Group14's composite materials; (ii) slides that outlined alternatives Group14 had explored; and (iii) slides that relate to the manufacturing process.

1. Comparisons

The first set of slides simply disclose specific values within the ranges of figures set forth or claimed in the '950 Patent. For example, the slides labeled (i) G14_0001316 (dated July 25, 2017), (ii) G14_0001335 (dated August 29, 2017), and (iii) G14_0007055 (relating to the October 2017 Summit) report certain physiochemical properties for four (4) different batches of product. See Ex. 4 to Pivovar Decl. at 22–24 (docket no. 70 at 23–25). Such properties are discussed in an almost 12-page section of the '950 Patent labeled “Physicochemical Properties of Composites with Extremely Durable Insertion of Lithium that Influence Electrochemical Performance.” '950 Patent at § J, 51:11–74:29. According to the '950 Patent, traditional carbon anodes limit the power, capacity, and cycle life of an electrical storage device (rechargeable battery) because they: (i) restrict the movement of lithium ions to the two-dimensional plane between layers of graphite; (ii) have an “ordered and crystalline structure” that requires six (6) carbon atoms for each lithium ion; and (iii) expand, contract, and shift during battery operation. Id. at 1:55–61, 2:15–20, & 51:14–31. The '950 Patent postulates that, when the disclosed invention, *i.e.*, the Si-C composite, is used in a battery anode, improved electrochemical performance is

publications (WO 2017/040299) as “the counterpart to the '103 Patent.” See id. But see id. at ¶ 14 (indicating that WO 2014/143213, rather than WO 2017/040299, shares the same disclosure as the '103 Patent); '103 Patent (tracking International Publication No. WO 2014/143213's description, but *not* its claim language). Given Dr. Martin's obvious citation error, and his failure to discuss the '103 Patent itself or any of the other patents obtained by Group14, the Court concludes that Dr. Martin's opinions relating to “other Group14 public disclosures” is entitled to no weight.

achieved as a result of the physiochemical properties of the carbon scaffold and the impregnated silicon. See id. at 4:38–46 & 51:32–37.

The '950 Patent identifies the following physiochemical properties as being predictive of “extremely durable” intercalation of lithium: (i) silicon content (loading) by percentage weight; (ii) total specific surface area, which is typically expressed in units of square meters per gram (m^2/g); (iii) pore volume; (iv) pore size or volume distribution, quantified as the percentages, respectively, of macropores (over 50 nanometers (nm) in diameter), mesopores (2–50 nm in diameter), and micropores (less than 2 nm in diameter) in the scaffold or the composite; (v) silicon particle size distribution, described as a specific dimension at a percentage of the volume distribution, for example, 5 nm at “D_v,50” means a particle size of five nanometers at fifty percent (50%) of the volume distribution, which would be equivalent to the “average particle size,” see id. at 59:40–43; (vi) span of particle sizes at “D_v,10,” “D_v,50,” and “D_v,90” (10%, 50%, and 90% of the volume distribution, respectively); and (vii) ratio of lithium atoms to carbon atoms (abbreviated as Li:C). See id. at 10:21–39, 11:36–40, & 56:26–61:35; see also '103 Patent at 2:14–22. The ranges for these properties are stated in the '950 Patent with respect to both “composite material exhibiting extremely durable intercalation of lithium,” e.g., '950 Patent at 56:26–27, and certain embodiments of the patented invention, as summarized in the following table:

Physiochemical Property	Low	High
Silicon Content (Loading)	5%	95%
Surface Area	10 m^2/g < 0.1 m^2/g	200 m^2/g > 500 m^2/g

Physiochemical Property	Low	High
Pore Volume	0.01 cm ³ /g	0.2 cm ³ /g
Pore Size Distribution expressed as less than a percentage of micropores, less than a percentage of mesopores, and more than a percentage of macropores	< 0.1% micropores mesopores	> 99.9% macropores
Silicon Particle Size Distribution described in nanometers (10 ⁻⁹ m) (nm) and microns, also known as micrometers (10 ⁻⁶ m) (μm)	Dv,0: 1 nm Dv,50: 5 nm Dv,100: 8 nm	Dv,0: 5 μm Dv,50: 20 μm Dv,100: 100 μm
Span of Particle Sizes expressed as Dv,50 to Dv,90–Dv,10	2 to 1	100 to 10
Li:C Ratio	0.05:6	2.5:6

The comparison slides do nothing more than report the properties of particular batches of composite materials. None of the numerical figures contained in the slides fall outside the values set forth in the '950 Patent, which are shown in the preceding table. Group14 makes no argument that the test products discussed in the comparison slides were not embodiments of the invention disclosed in the '950 Patent.¹⁴ At most, the comparison slides might be viewed as reflecting more specific goals for certain physiochemical properties, but they still reflect the practice of the invention described in the patent, as opposed to any trade secret. The comparison slides provide no information concerning the methods employed in generating the batches at issue, and they do not satisfy Group14's obligation to identify its trade secrets with reasonable specificity.

¹⁴ Silicon content by weight, pore structure defined with respect to pore size distribution, pore size or volume, ratio of carbon scaffold pore volume to silicon volume, average particle size, and carbon scaffold surface area are each an element of one or more claims of the '950 Patent. *See* '950 Patent at Claims 1, 7–14, 16, & 26–28.

2. Alternatives

The second group of slides included in Group14's supplemental interrogatory response are alleged to disclose "negative know-how." *See* Martin Decl. at ¶ 22, Ex. 5 to Pivovar Decl. (docket no. 70-1). A slide labeled G14_0024051, apparently prepared for the June 2017 Summit, however, merely recounts what was "explored," as opposed to which alternatives worked or did not work or were better or worse. *See* Ex. 4 to Pivovar Decl. (docket no. 70 at 26). In his declaration, Group14's expert (Dr. Steve Martin) summarizes what the slide allegedly teaches, but his interpretation is not included in Group14's discovery response, *compare* Ex. 4 *with* Ex. 5 to Pivovar Decl. (docket nos. 70 & 70-1), and it goes beyond the actual wording of the presentation material without citing to any evidence concerning the content of conversations accompanying the slide during the June 2017 summit. In contrast, Nexxon has offered testimony from one of Group14's employees, Chris Timmons, indicating that Group14 opted not to disclose certain "proprietary" information during the June 2017 summit, but during his deposition, Timmons could not "recall any specifics." Timmons Dep. at 195:2–196:24, Ex. 11 to Lindberg Decl. (docket no. 70-4).

Another slide also labeled G14_0024051 contains two graphs and two bullet points, one of which has two subpoints. Ex. 4 to Pivovar Decl. (docket no. 70 at 27). Dr. Martin has explained that this slide discloses a specific "theoretical maximum weight percent of Si" and teaches that, "[b]y not filling the [carbon] pores to 100%, the infiltrated Si has available free-volume to expand and contract without creating stress during charging (lithiation) and discharging (delithiation)." Martin Report at ¶ 23, Ex. 5

1 to Pivovar Decl. (docket no. 70-1 at 20). Notably, this information is not explicitly stated
2 within the bullet points and subpoints of the slide, but it is reflected in the '950 Patent.
3 See '950 Patent at 73:50–56 (“[C]omposite materials in certain embodiments will
4 comprise a fraction of trapped pore volume, namely, void volume non-accessible to
5 nitrogen gas as probed by nitrogen gas sorption measurement. Without being bound by
6 theory, this trapped pore volume is important in that it provides volume into which
7 silicon can expand upon lithiation.”). Group14 has not sufficiently identified what, if
8 any, information in the slide at issue constitutes a trade secret.

9 Yet another slide associated with the June 2017 summit, labeled G14_0001418,
10 offered broad, generic descriptions of the carbon being employed and the processes being
11 developed, and indicated that, for producing its own scaffold, Group14 had “potential for
12 access to E2¹⁵ equipment and resources” or “external vendor equipment and resources.”
13 Ex. 4 to Pivovar Decl. (docket no. 70 at 28). The statements in this slide are so vague,
14 speculative, and/or forward-looking that they cannot be considered trade secrets.

15 **3. Manufacturing Process**

16 The last category of slides includes (i) results of thermogravimetric or thermal
17 gravimetric analysis (“TGA”), which is characterized in the '950 Patent as “a technique
18 known in the art,” see '950 Patent at 78:2–3; (ii) information about a lab-scale process,
19 pilot-scale equipment, and scale-up plans and progress; (iii) lists of customers, investors,

21 ¹⁵ E2 presumably refers to Group14’s predecessor EnerG2. The possible use of EnerG2’s
22 equipment and resources cannot be considered a trade secret given that EnerG2 was identified as
23 the applicant in the international publication associated with the '950 Patent. See Int’l Publ’n
No. WO 2017/040299 A1.

suppliers, and vendors; and (iv) commercial-scale financial projections. See Ex. 4 to Pivovar Decl. (docket no. 70 at 29–47).

a. Thermogravimetric Analysis

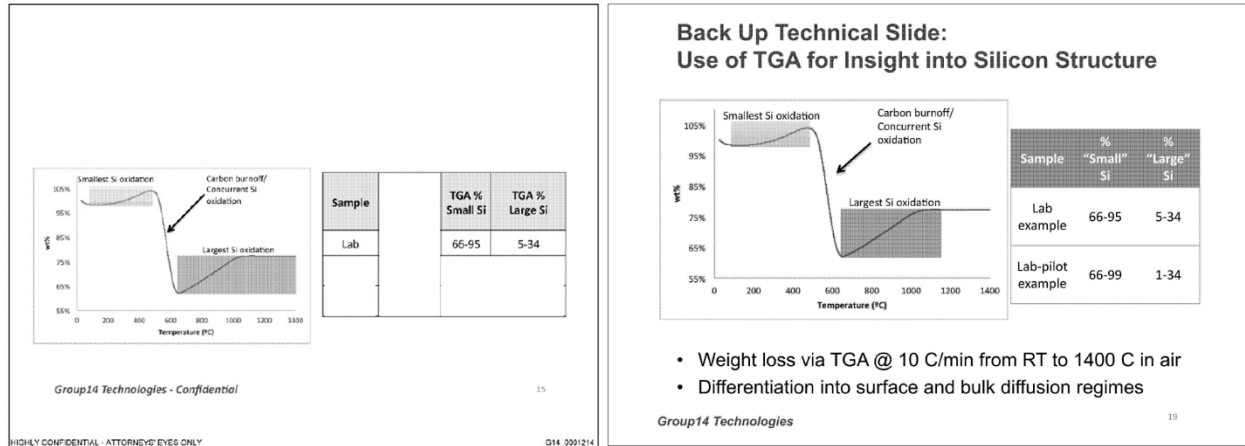
Although referenced in the '950 Patent, TGA is more fully explained in a different patent procured by Group14, namely U.S. Patent No. 11,335,903 (“’903 Patent”). TGA is a destructive method used in this context to quantify the amount and location of silicon within an Si-C composite. See ’903 Patent at 3:27–29 & 3:44–4:14. The TGA process entails heating the Si-C composite from 25°C to 1100°C, which burns off all of the carbon and oxidates all of the silicon to SiO₂ (silicon dioxide), and taking measurements of the material’s mass at different temperatures. Id. at 3:29–43. The percentage of silicon within the composite (in other words, the amount of silicon loading) and the fraction of the silicon that was impregnated within the pores of the carbon scaffold (as opposed to deposited on particle surfaces) may then be calculated by using the formulas set forth in the ’903 Patent. See id. at 3:32–43 & 3:63–4:14. This data provides an indication of whether the Si-C composite has the characteristics believed to provide high charge/discharge rates and robustness for lithium-ion battery anode applications, namely a high silicon content with most, if not all, of the silicon particles being amorphous (rather than crystalline), nano-sized, and imbedded within the pores of the carbon scaffold. See id. at 1:33–42 & 3:4–26.

Dr. Martin refers to this testing technique, which was previously known in the art, as Group14’s “TGA trade secret method,” and he refers to the obtained results as “TGA metrics.” See Martin Decl. at ¶ 25, Ex. 5 to Pivovar Decl. (docket no. 70-1). Dr. Martin

does not, however, acknowledge that the use of TGA to gain “insight” into the Si-C composite “structure,” as well as the data he calls the TGA metrics, were disclosed, on June 8, 2017, in a presentation to the United States Department of Energy, *see* Ex. 8 to Lindberg Decl. (docket no. 67-2 at 20), the slides for which were marked with the following words: “This presentation does **not** contain any proprietary, confidential, or otherwise restricted information.” *Id.* (docket no. 67-2 at 2) (emphasis added).



Id. The graph in the slide labeled G14_0001200 and G14_0001214, Ex. 4 to Pivovar Decl. (docket no. 70 at 29), which is dated March 2017 and which Dr. Martin has opined taught Nexeon a trade secret, is identical to the graph in the slide shown approximately three months later to the Department of Energy. In addition, the percentages reported for the “lab example” are the same in both documents. A redacted version of the slide shown to Nexeon in March 2017 (left) and the slide presented to the Department of Energy in June 2017 (right) are reproduced on the next page for comparison purposes.



7 Id. (redacted); Ex. 8 to Lindberg Decl. (docket no. 67-2 at 20). Moreover, in a slide used

8 during the June 2017 Summit, Group14 indicated that the TGA “metric” had been

9 “validated” in an article published in March 2017. See G14–0024051, Ex. 4 to Pivovar

10 Decl. (docket no. 70 at 30) (alluding to T. Jaumann, M. Gerwig, J. Balach, S. Oswald,

11 E. Brendler, R. Hauser, B. Keiback, J. Eckert, L. Giebeler, & E. Kroke, *Dichlorosilane-*

12 *derived nano-silicon inside hollow carbon spheres as a high-performance anode for*

13 *Li-ion batteries*, 5 J. MATERIALS CHEMISTRY A 9262 (2017)). Dr. Martin has made no

14 reference to this article nor has he attempted to distinguish the alleged “TGA trade secret

15 method” from the techniques publicly disclosed by the Argentinian, Austrian, and

16 German scientists who authored the article in the Journal of Materials Chemistry A.

17 Group14 has not made the requisite showing of any trade secret associated with

18 thermogravimetric analysis.

19 **b. Processes, Plans, and Progress**

20 In its supplemental interrogatory response, Group14 has included five slides that

21 articulated the advantages and disadvantages of a lab-scale silane deposition process. See

22 G14–0001418, Ex. 4 to Pivovar Decl. (docket no. 70 at 31–33). These slides include

23

1 minimal detail about the lab-scale method being evaluated. They do, however, indicate
2 that a “tube furnace” was employed and that such furnace produced undesirable results
3 because the temperature was not uniform along the length of the tube. *Id.* (docket no. 70
4 at 32–33). Other slides reflect that a “batch rotary kiln” was selected for pilot-scale
5 development, *id.* (docket no. 70 at 35–36), but this choice of equipment cannot be
6 considered a trade secret because the ’950 Patent identifies rotary kilns as one of the
7 designs “known in the art” that would be “suitable” for chemical vapor deposition, *see*
8 ’950 Patent at 30:56–60, and the ’103 Patent contains two dependent claims in which the
9 only additional element is use of a rotary kiln, *see* ’103 Patent at Claims 5 & 14.
10 Additional slides reflect that a rotary kiln with internal riffle flights had been selected, but
11 one of these slides further states that such technology is “patent-protected” and identifies
12 both the inventor and the assignee, Harper International Corp., as well as the patent-
13 application number.¹⁶ *See* Ex. 4 to Pivovar Decl. (docket no. 70 at 43).

14 The remaining manufacturing-related slides either (i) contain flow diagrams,
15 which lack the detail necessary to view them as trade secrets, and which seem merely to
16 offer in illustrative form the steps described in the ’950 and ’103 Patents, or (ii) identify
17 key process parameters, but without providing any specific values for them or any inkling
18 of whether they should exceed or remain below some threshold. *Id.* (docket no. 70 at 39–
19 42). Given the level of detail set forth in the ’950 and ’103 Patents, which collectively

21 ¹⁶ The patent for the rotary kiln with riffle flights issued in 1999 and expired in 2018, twenty (20)
22 years after the application (No. 09/071,395) was filed. *See* U.S. Patent No. 5,997,289; *see also*
23 35 U.S.C. § 154(a)(2). When the slides at issue were shown to Nexxon, the patent for the riffle-
flight kiln was less than a year away from expiring and the technology was far from being a trade
secret.

1 contain 181 pages, 86 examples, and 82 numbered embodiments, Group14 must do much
 2 more to identify with the requisite reasonable particularity the “manufacturing processes
 3 . . . to achieve commercially viable Si-C composite BAM” that it asserts in its operative
 4 pleading are trade secrets. *See* Compl. at ¶¶ 49 & 57 (docket no. 1).

5 **c. Customers, Investors, Suppliers, and Vendors**

6 Although customer (and perhaps investor) lists might, in certain circumstances,
 7 constitute trade secrets, Group14 makes no showing that general verbiage like “multiple
 8 companies” in “Asia and Europe,” which is contained in one of the slides labeled
 9 G14_0001418, Ex. 4 to Pivovar Decl. (docket no. 70 at 45), or the identities of five (5)
 10 Fortune 500 companies with well-documented, pre-2017 interests in lithium-ion battery
 11 technology qualify as trade secrets. Neither Group14 nor its expert attempts to assert that
 12 the names of Group14’s customers and investors were not readily ascertainable. *See Ed*
 13 *Nowogroski Ins., Inc. v. Rucker*, 137 Wn.2d 427, 441, 971 P.2d 936 (1999) (“Trade secret
 14 protection will not generally attach to customer lists where the information is readily
 15 ascertainable.”); *see also Perrin Bernard Supowitz, LLC v. Morales*, No. 22-cv-2120,
 16 2023 WL 1415572, at *7 (C.D. Cal. Jan. 31, 2023) (“the most important consideration is
 17 whether the information is readily accessible to a reasonably diligent competitor”
 18 (quoting *Hollingsworth Solderless Terminal Co. v. Turley*, 622 F.2d 1324, 1332 (9th
 19 Cir. 1980))).

20 Group14 and its expert focus instead on the suppliers and vendors enumerated in
 21 the aforementioned slide and a slide labeled G14–0001394, Ex. 4 to Pivovar Decl.
 22 (docket no. 70 at 46–47). One of the manufacturers, which was mentioned in both slides,
 23

1 is Harper International Corp. (“Harper”), which held the patent on riffle-flight kilns, and
2 which was therefore, in 2017, the only entity capable, in the absence of a license, of
3 providing such equipment. Group14 cites no authority to support combining trade secret
4 law with patent law in a manner that would preclude a patentee’s customer’s competitor
5 (in this context, Nexeon) from gaining access, through the patentee (Harper), to the
6 publicly-disclosed invention, and would thereby confer on the customer (Group14) an
7 unsanctioned monopoly. *Cf. Perrin*, 2023 WL 1415572, at *11 (“If the mere identity of
8 [an entity’s] vendors is a trade secret, then trade secret law would effectively prevent
9 [others] from competing altogether because it would prevent them from buying products
10 from any vendors who sold products to [the entity]. This cannot be the result.”). Given
11 the lack of rigor in Dr. Martin’s analysis regarding a key vendor (Harper), which was
12 listed with respect to three of the eight segments of Group14’s pilot-scale process, the
13 Court declines to accept Dr. Martin’s opinion that the supplier and vendor information at
14 issue was not readily ascertainable.

15 **d. Commercial-Scale Financial Projections**

16 Group14 has included within its supplemental interrogatory response three slides
17 labeled G14_0001418, Ex. 4 to Pivovar Decl. (docket no. 70 at 46–48), that outline
18 projections for commercial-scale costs of goods sold (“COGS”), and it refers to these
19 slides in its motion to compel discovery, *see* LCR 37 Submission at 10 (docket no. 68).
20 Neither Group14 nor its expert, however, has offered any basis for why such information
21 would constitute trade secrets. Presumably, the costs of raw materials and overhead
22 expenses, only some of which (namely direct labor and electricity) appeared in the slides
23

1 at issue, are within a business's capability to compute for itself, and Group14 has not
2 demonstrated that the figures set forth in the presentation materials had independent
3 economic value, *i.e.*, were of benefit to companies other than Group14. Notably, the
4 slides do not contain the prices that Group14 intended to charge or its projected profit
5 margins, and given Group14's and its expert's silence on the subject, the Court finds
6 nothing in the COGS slides that would have offered Nexeon the type of competitive
7 advantage generally associated with trade secrets.

8 **D. Nexeon's Internal Communications**

9 In its reply in support of its motion to compel discovery, Group14 quotes from an
10 email authored by Nexeon's Chief Engineer Bill Macklin, Ph.D., as evidence that Nexeon
11 "developed 'NSP2' using Group14's trade secrets." LCR 37 Submission at 28 (docket
12 no. 68 at 35). Dr. Macklin's email refers to two samples supplied by Group14 and
13 related data from which Nexeon made certain calculations to support "the hypothesis that
14 we have successfully used the voids present." Ex. 17 to Pivovar Decl. (docket no. 70-8)
15 (emphasis added). Dr. Macklin further stated that "this is the first example and direct
16 evidence of an NSP2 candidate material." *Id.* (emphasis added). Whether the "this"
17 mentioned in the email was Group14's Si-C composite or a different product (perhaps
18 developed by Nexeon, which was possibly the "we" in the preceding sentence) is unclear,
19 but the response from Nexeon's IP Director Christopher Michael Friend, Ph.D., which
20 Group14 has not mentioned in the LCR 37 Submission, shows that Nexeon was
21 attempting to avoid any misappropriation:

22 The silicon needs to be deposited in exactly the right way to use all the pore
23 space and this may correlated with the carbon pore size distribution (for a

1 fixed value of overall porosity) plus silane deposition process parameters. If
2 we can capture the correlations we could get IP that is distinguished over the
3 published G14 patents (and not related to their trade secrets/confidential
4 info).

5 Id. (emphasis added).

6 In a document dated November 20, 2017, which was almost three months after
7 Drs. Macklin and Friend exchanged the quoted emails, a Nexeon employee (Charles
8 Mason) described Phase 1 of proposed research-and-development scale silicon-deposition
9 trials as “assess[ing] the repeatability of G14 patent examples using Nexeon sourced
10 carbon scaffolds.” Ex. 18 to Pivovar Decl. (docket no. 70-9 at 4) (emphasis added). In
11 other words, Nexeon was planning to test whether it could make Group14’s patented Si-C
12 composite starting with its own carbon material. To the extent that Nexeon actually
13 practiced Group14’s invention without authorization, Group14’s remedy lies within the
14 statutes and jurisprudence governing patents, as opposed to trade secret law. And, to the
15 extent that Nexeon’s employees (Mason, Richard Taylor, and Dr. Friend) are not the
16 inventors (or not the only inventors) of the “particulate material comprising a plurality of
17 composite particles” that is claimed in the ’786 Patent, see ’786 Patent at Claim 1, but
18 rather took credit for Group14’s work, Group14’s avenues of relief are to seek joinder of
19 any omitted inventor, see 35 U.S.C. §§ 116 & 256; see also Stark v. Advanced Magnetics,
20 Inc., 119 F.3d 1551, 1555 (Fed. Cir. 1997) (holding that Section 256 “allows deletion of a
21 misjoined inventor whether that error occurred by deception or by innocent mistake” and
22 the “addition of an unnamed actual inventor,” if such “unnamed inventor is free of
23 deceptive intent”), or to challenge the ’786 Patent on the basis of inequitable conduct, see
PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc., 225 F.3d 1315 (Fed. Cir. 2000).

Given the statutory presumption of validity that attaches to the '786 Patent, *see* 35 U.S.C. § 282(a), the Court cannot consider the type of collateral attack Group14 attempts to mount by alleging that the invention disclosed in the '786 Patent is the product of trade secret misappropriation. Thus, Nexeon's internal communications do not themselves support Group14's request that it be permitted to conduct a "fishing expedition" to look for evidence of wrongdoing; Group14 must first outline with "reasonable particularity" the contours of its trade secrets. *See DeRubeis*, 244 F.R.D. at 680–81.

Conclusion

For the foregoing reasons, the Court ORDERS:

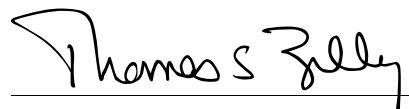
(1) Group14's motion to compel discovery, docket nos. 65 & 68, is DENIED.

(2) The parties are DIRECTED to meet and confer and to file, within thirty (30) days of the date of this Order, a Joint Status Report proposing a reset trial date and related dates and deadlines. In such Joint Status Report, the parties shall address whether the Court should stay further discovery pending Nexeon's filing of, and the Court's resolution of, a dispositive motion concerning Group14's federal and state claims for trade secret misappropriation, as well as the portions of Group14's breach of contract and unjust enrichment claims that are premised on the existence of a trade secret.

(3) The Clerk is directed to send a copy of this Order to all counsel of record.

IT IS SO ORDERED.

Dated this 26th day of March, 2024.



Thomas S. Zilly
United States District Judge